

# Work Order ID 106698

September-11-13 11:23:15 AM

\*106698\*

Page 1

Item ID: D6101-005 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Saddle Billet  
 Start Date: 9/11/13 Start Qty: 40.00 \*40\* Cust Item ID:  
 Required Date: 9/11/13 Req'd Qty: 40.00 \*40\* Customer:  
 Reference:

Approvals: Process Plan: MLS Date: 13-09-12 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D6101	Rev B								
100	PURCHASING	0.00							
*100*									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>21360</u>								
	a) Description: Aluminum billet								
	b) 5.00" x 8.250" x 2.50" thick								
	c) Tolerance on all dimensions are +0.030"/-0.000"								
	d) Grain direction along 5.00" length								
	e) Material: 7075-T7351 (QQ-A-250/12)								
	f) Material certification required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
*110*									
Packaging	Memo	0.00							
Packaging	Ensure material certification is attached								

CL 13/09/14 40

13/14 (40)

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
---	---	---	---

Work Order ID 106698

\*106698\*

Page 2

September-11-13 11:23:15 AM

Item ID: D6101-005 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Saddle Billet

Start Date: 9/11/13 Start Qty: 40.00 \*40\* Cust Item ID:  
 Required Date: 9/11/13 Req'd Qty: 40.00 \*40\* Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing  Memo Ensure Material certification comply to Dwg D6101	0.00  0.00		over 13/10/18		40	0		
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: MAT 41  Memo	0.00  0.00		over 13/10/18		40	0		
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							<div> <div></div> <div>13-10-21</div> <div>13-10-24</div> </div>

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

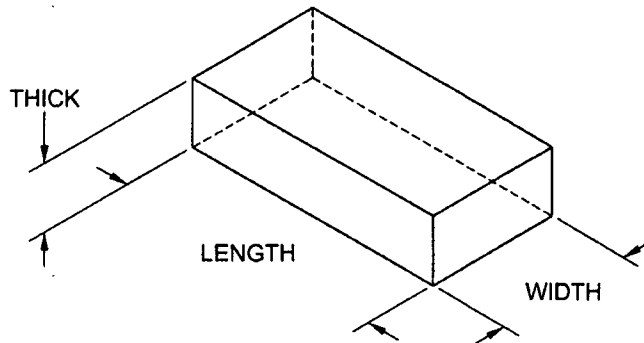
Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

**RELEASED**  
09/07/15/W

**B**

106069-8 mcs  
13-09-12  
COPY TO  
ELEMENT  
106069-8  
13-09-12

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

34

TC

11214

1  
Ship From: THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 843368  
Ship Date 30Sep13 at 13:32 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: (20115)  
DART AEROSPACE  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7

Ship To: (1)  
DART AEROSPACE  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7  
Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

1) Our Order PEC-607379- 1 Your PO # 21360  
ALUMINUM PLATE 7075T7351  
2.50" THICK X 5.0000" X 8.2500"

Heat Number Tag No  
543191 221929

Quantity PCS Wt LBS  
11.46 SFT 40 432

2) Our Order PEC-607379- 2 Your PO # 21360  
ALUMINUM PLATE 7075T7351  
2.50" THICK X 7.7500" X 8.2500"

Heat Number Tag No  
543191 221930

Quantity PCS Wt LBS  
8.88 SFT 20 325

TOTAL: Tags PCS LBS  
2 60 757

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT  
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*  
\*\* REFERENCED ON IT \*\*

TOTAL ITEMS (1&2) 1 SKID G.W. 772 LBS

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA  
CONCORD, ONT.\* \*\*\* 9:00 AM TO 4:00 PM \*\*\*

\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL \*

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
RAPPORTÉES IMMEDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

SHIP FROM: B I L L O F L A D I N G  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 843368  
Ship Date 30Sep13 at 13:32 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115)  
DART AEROSPACE

Ship To: ( 1)  
DART AEROSPACE

B I L L O F L A D I N G

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*  
\*\*\*\*\*  
\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

Page: 2 .... Last

TOUDES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE  
RAPPORTEES IMMEDIATEMENT  
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY  
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

# THYSSENKRUPP MATERIALS NA

## Certificate of Mill Test Results

BL PEC-607379-001

Pg 1/2

PO/Rel

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: \_\_\_\_\_

Attn: \_\_\_\_\_

PART NO.

### CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition, tests and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

For:

*Rob Woodall*

Rob Woodall  
Director of Manufacturing Davenport Works

*Teresa Thom*

Teresa Thom  
Quality Assurance Manager

Page 1 of 2

Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item
2011-09-24	8800836	00000	1000532497-1	DPB-32497-1
P.O. No./Govt Contract No.	Customer	Alcoa Item		
PEC-252048	THYSSENKRUPP MATER	G041131223R01		

Ship To: THYSSENKRUPP MATERIALS CA LTD  
2821 LANGSTAFF RD.  
CONCORD LAKE SC6 ON

Item Description  
2.5 IN TK (+.075 -.075) X 48.5 IN W (+.3125 - 0.000) X 144.5 IN LN (+.5 -0.0) (N) A/T 7075- T7351 RECTANGLE MILL FINISH, USI 3MM DEAD ZONE REQ'D BOTH SIDES, SAWED. EXC MRK AMS-QQ-A-250/12 IS 3007 AMS-STD-2154 REV A AMS4078 REV J EXC MRK ASTM B209 REV 10 ASTM B594 REV 13 BSS7055 REV A DPS4.713 CN PEOAH CAMPS9101 REV B EXC MRK MMS159 REV T ((MARKED)) KRAFT PAPER INTERLEAVED MAX GROSS SKID WGT: 5000 LB QUAN TOL +/- 30 % USI CL A 3 MM CQR 0240506 REV 01 CUST REQ 13-09-20 \*\*\* W/E 13-09-28 \*\*\*

*Sub*  
*13/10/18*

Num	Package Ticket	Lot	Weight	Quantity	COM	Inspector Clock Numbers
1	559600	543191	3561	2	PC	47441

Notes for CQR: 0240506.1

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I. PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154 REV A, PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 REV A ALSO MEET THE REQUIREMENTS OF MIL-STD-2154. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

CQR: 0240506.1 -Specification Limits -

Temp	Dir	Max	Min	UTS KSI	TYS KSI	EL4D PCT
T7351	Long Transv.	63.9	66.0	63.9	52.0	6

T7351 Elec. Cond. (BC) % MIN 38.0 PCT



# THYSSENKRUPP MATERIALS NA

## Certificate of Mill Test Results

BL PBC-607379-001

Pg 2/2

PO/Rel

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by: \_\_\_\_\_

Attn: \_\_\_\_\_

PART NO. \_\_\_\_\_

### CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries in this certificate by any recipient may be punished as a felony under applicable law.

Per:

*Rob Woodall*

Rob Woodall  
Director of Manufacturing Davenport Works

*Terrance Thom*

Terrance Thom  
Quality Assurance Manager

Page 2 of 2

CQR: 0240506.1 -Specification Limits (cont.)

Chemical Composition		SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other
		Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05
		Min		1.2		2.1	0.18	5.1			
Alloy	7075										
Lot:	543191										

Lot: 543191 - Mechanical, Physical, Metallography, Quantometer Results

Tmpt Dir		NO ->	GTS	ITS	ELAD
		Test	KSI	KSI	PCT
T7351	Long Transv.	3	70.2	59.5	10.3
			70.2	59.4	10.3
			70.8	60	10.6

T7351 Elect Cond %IACS 39.9 40.1 40.3 PCT

Cast Number	Chemical - ORS	SI	FE	CU	MN	MG	CR	ZN	TI
H9209023	Actuals	0.10	0.28	1.6	0.02	2.5	0.19	5.6	0.02

This material was melted in the United States or a Qualifying Country [REF DPARS 225.872.1(a)]; it was manufactured in the United States

*OK 13/10/18*